



## General Purpose AC EMI Filter

**El.italia EC-EC30 serie**



### Technical specifications

Operating voltage	120/250 VAC
Current rating	1A-30A
Frequency	50/60Hz
Voltage drop	1 Volt max.
High potential test voltage	P -> E 1500VAC P -> N 1414VDC (applicable for excluding surge suppressor filter)
Insulation resistance	≥ 300 MΩ @ 500VDC (PN→E)
Operating temperature	40°C / -25°C +85°C

\*Image shown is for illustrative purpose only

### Features and benefits

- | Filters available in single stage and double stage
- | All filters provide high attenuation performance.
- | Two stage filters designed for noisy application requiring excellent filter performance.
- | All filters compliance to EN60939-3:2015 & EN60939-2:2005 standards.
- | High reliable
- | Easy and fast chassis mountable filter with compact size.
- | CRCA metal can with nickel plating provides good aesthetic and corrosion protection.
- | Filters available in medical version without capacitor to earth.
- | General purpose filters with low leakage current for safety critical application.
- | With surge suppressor filters also available.
- | Various terminal options are available

### Attenuation Type

Single Stage	Standard
Double Stage	High

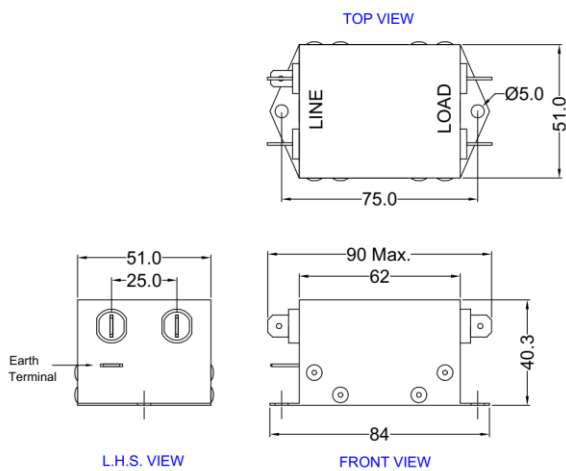
### Applications

- | Consumer product
- | Defence application
- | Medical equipment
- | Industrial application
- | Automotive application
- | Weighting Machines
- | Printing Machinery
- | Electrical equipment application
- | Office automation equipment

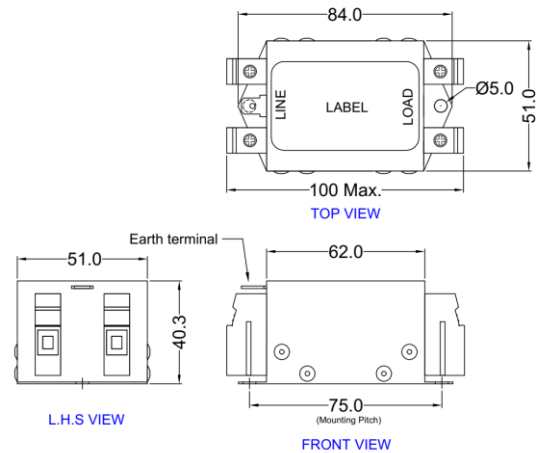
## Mechanical details

## El.italia EC-EC30 serie

### For fast-on terminal



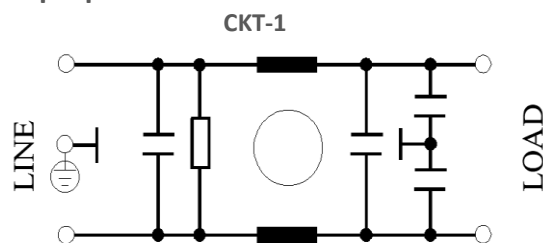
### For touch safe terminal



All dimensions in mm  
General tolerance=±1mm

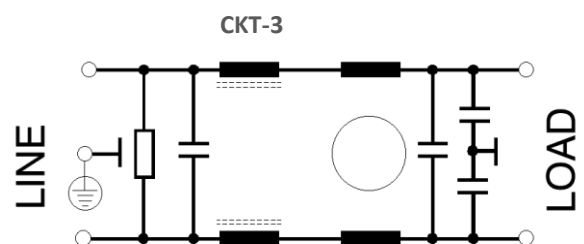
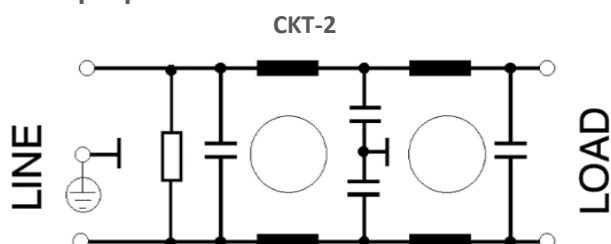
## Electrical schematic for Single Stage Filter

### General purpose –



## Electrical schematic for Double Stage Filter

### General purpose –

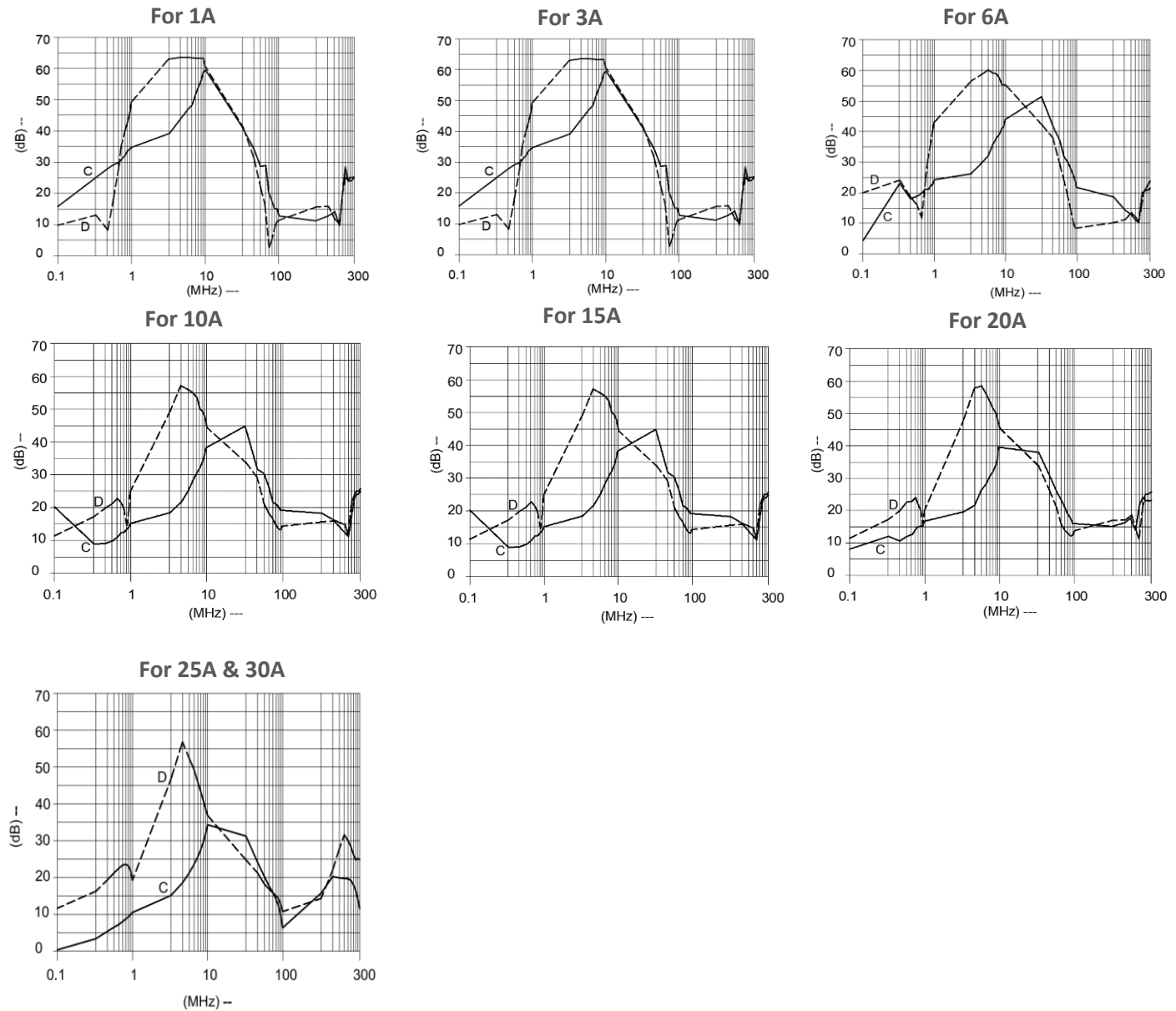


## Filter attenuation Graph

C = Common mode (asymmetrical) —————

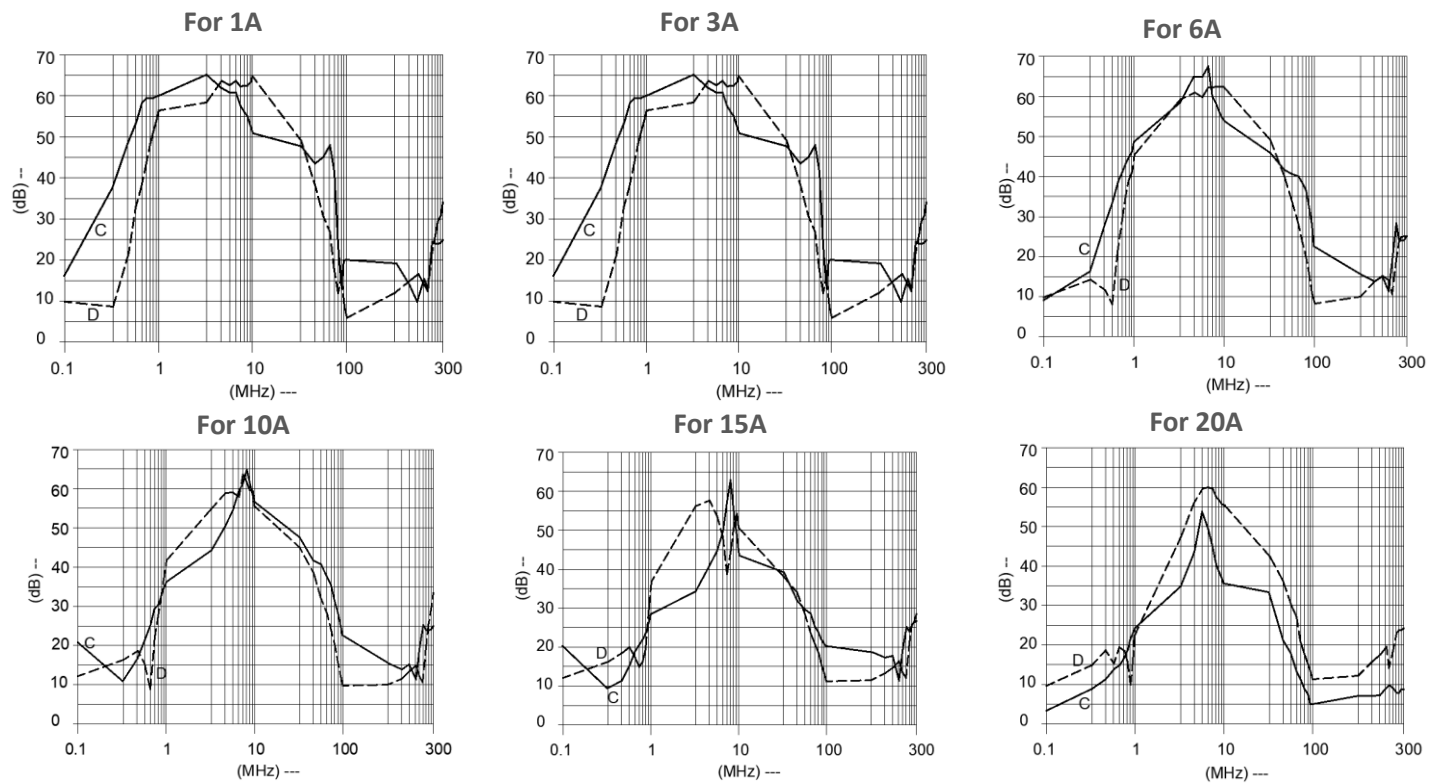
D = Differential mode (symmetrical) - - - - -

### For general application (Single Stage)

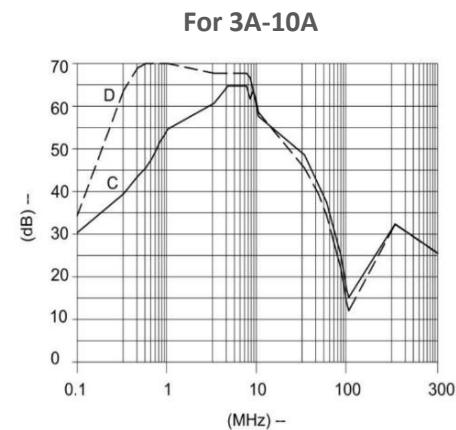


For general application (Double Stage) (CKT 2)

**El.italia EC-EC30 serie**





For general application (Double Stage) (CKT 3)



## Filter Selection Table

*El.italia EC-EC30 serie*

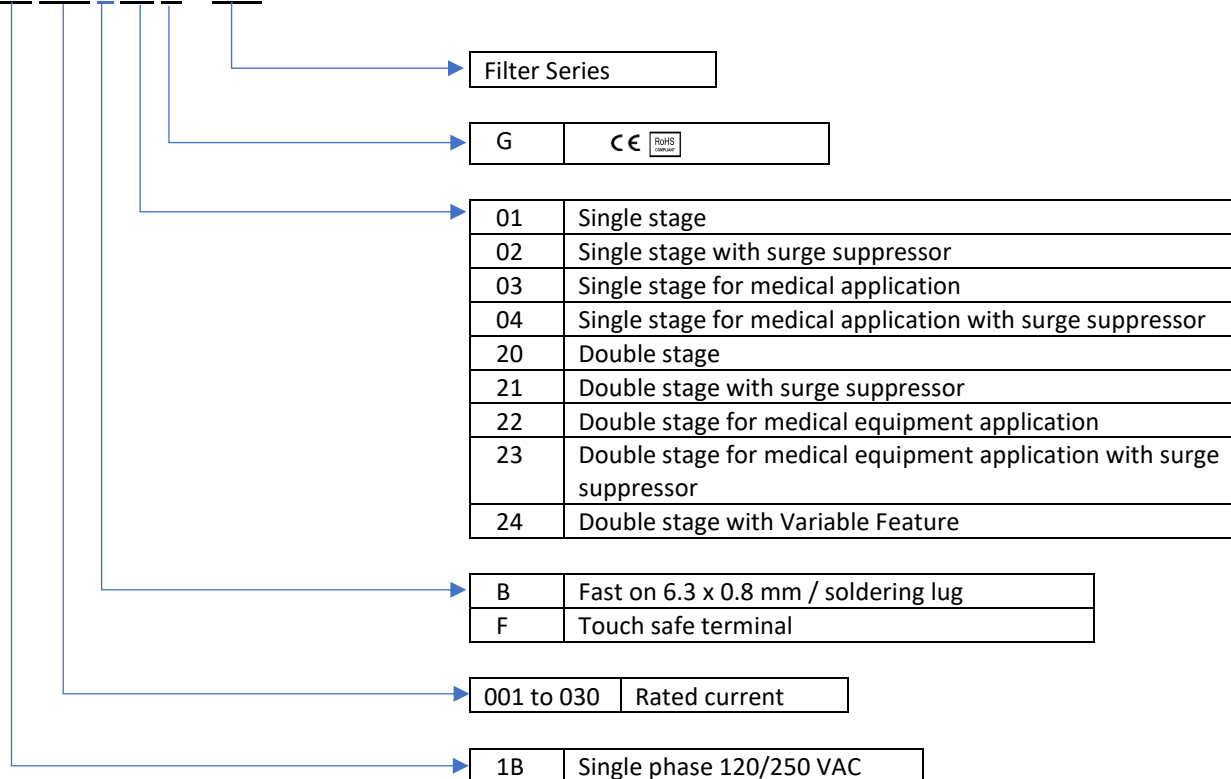
Sr. No.	Elcom part codes (ordering code)	Rated Current rating (A) @40°C	Leakage current (mA) @250VAC	Terminals (X)		Approx. Weight (gm)	Attenuation
				Fast-on 	Touch safe 		
1	EF-1B001X01G-C30	1	< 0.5	B	F	160	Standard
2	EF-1B003X01G-C30	3	< 0.5	B	F	160	Standard
3	EF-1B006X01G-C30	6	< 0.5	B	F	160	Standard
4	EF-1B010X01G-C30	10	< 0.5	B	F	160	Standard
5	EF-1B015X01G-C30	15	< 0.5	B	F	160	Standard
6	EF-1B020X01G-C30	20	< 0.5	B	F	160	Standard
6	EF-1B025X01G-C30	25	< 0.5	B	F	160	Standard
6	EF-1B030X01G-C30	30	< 0.5	B	F	160	Standard
7	EF-1B001X20G-C30	1	< 0.5	B	F	160	High
8	EF-1B003X20G-C30	3	< 0.5	B	F	160	High
9	EF-1B006X20G-C30	6	< 0.5	B	F	160	High
10	EF-1B010X20G-C30	10	< 0.5	B	F	160	High
11	EF-1B015X20G-C30	15	< 0.5	B	F	160	High
12	EF-1B020X20G-C30	20	< 0.5	B	F	160	High
13	EF-1B003X24G-C30	3	<1.0	B	F	170	High
14	EF-1B006X24G-C30	6	<1.0	B	F	170	High
15	EF-1B010X24G-C30	10	<1.0	B	F	170	High

## Connection Type

Current Rating (A)	Fast -on	Touch safe	Earthing
1A-20A	6.3 X 0.8mm	6 sqmm	Fast on terminal
21A-30A	-----	6 sqmm	Fast on terminal

## Syntax

**EF – 1B CCC X YY G – C30**



- To compile complete part number, replace the 'X' with required I/O connection terminal. (e.g. EF-1B006E20G-C30)
- Above 21A current rating filters have only touch safe terminal,
- Touch safe terminal tightening torque for 6 sqmm touch safe – 10.6-13 lbf.in
- Maximum leakage under usual AC operating conditions (acc. IEC 60939-3). Note: if the neutral line is interrupted, worst case leakage could reach twice this level.
- Customize products provided on request.